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Promotion Practice and Partnerships: ANPC's Fourth National Conference

Jeanette Mill, National Coordinator

The ANPC's Fourth National Conference, Promotion Practice and Partnerships, held in Albury Wodonga in late November was a great success. This issue of *Danthonia* includes reports on the conference from several different perspectives, but from my own perspective there were some particular highlights and successful new additions to the formula.

The conference was the first since ANPC became an incorporated association, so members had the opportunity to meet the new ANPC Executive Committee, and to attend the first ANPC Inc. Annual General Meeting – see insert for reports and minutes.

The conservation of what has become known as the forgotten flora, the non-vascular plants, was brought to the fore in a dedicated session (see below for session outcomes).

A series of practical techniques workshops was held as a follow on from the ANPC's highly successful Plant Conservation Techniques

Courses. These were designed to give practitioners a range of take-home skills, and to also offer an affordable and accessible alternative for community-based people unable to attend the whole conference. The workshops attracted many people from the region, including farmers and landcarers. In keeping with the non-vascular thread, two workshops were held on cryptogams – one on the Fungimap project (see separate report) and one on soil crust lichens. These were very well attended by enthusiastic would-be cryptogam conservationists.

The keynote papers set the scene well. Dr Kingsley Dixon, Director of Plant Science at Kings Park and Botanic Garden, Perth, Western Australia, and President of the ANPC, emphasised the need for scientists to be relevant to the conservation community in their research, and to bring outcomes to practitioners in an accessible way. Dr Dixon also recommended that practitioners look over the shoulder

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ANPC Inc. Mission Statement

"To promote and develop plant conservation in Australia."

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For enquiries, please contact the ANPC Inc. at:

GPO Box 1777
Canberra
ACT 2601
Australia

Telephone: 02 6250 9509;
Fax: 02 6250 9528;

Email: anpc@anbg.gov.au

Website:
<http://www.anbg.gov.au/anpc>



Contributing to *Danthonia*

Danthonia is a forum for information exchange for all those involved in plant conservation: please use it to share your work with others. Articles, information snippets, details of new publications and diary dates are all welcome. The deadline for the March 2000 issue is Friday 18th February.

Please send typed or handwritten articles, no more than 2 A4 pages, to Fiona Hall by fax, mail, e-mail, or diskette. If sending by e-mail, please send in the body of the text or as an attachment in Word 6 or Rich Text Format (rtf) to anpc@anbg.gov.au

Illustrations or logos are always needed too, in the form of clear prints, slides or drawings.

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Left: Louise Bull, Greening Australia and ANPC Committee member, leads participants on a field trip at a local patch of remnant vegetation. Photo: Jeanette Mill. Top right: Stuart Johnston, Soil Conservation Officer NSW National Parks & Wildlife Service, gives delegates a first hand look at the extensive alpine restoration work at Kosciuszko National Park. Photo: Jeanette Mill. Bottom right: Dr David Given, Chair of the IUCN Species Survival Commission Plant Conservation Subcommittee and ANPC Vice President (centre), and Jeanette Mill, ANPC National Coordinator (right) summing up in the plenary session.

of a scientist, and actively form partnerships to promote the vital two way flow of information. The ANPC's unique and crucial role in achieving this was emphasised.

Dr David Given, Chair of the IUCN Species Survival Commission (SSC) Plant Conservation Subcommittee, Manager of the International Centre for Nature Conservation in New Zealand, and ANPC Vice-President, brought an international perspective with his keynote paper. Global strategies such as the SSC Plant Conservation Programme for 2000-2005 were discussed, with ANPC being presented as a world-leading proponent in conservation networking.

The international links were furthered by Lucy Sutherland, representing Botanic Gardens Conservation International, who brought delegates up to date on the new International Agenda for Botanic Gardens in Conservation, being formulated through a world-wide consultative process.

Sessions and Recommendations

The three days of papers highlighted the broad membership of ANPC and its crucial role in facilitating the sharing of information between all involved in plant conservation. Papers were presented from a range of organisational backgrounds, including industry representatives like the National Herbalists Association of Australia. This paper explored the impact of the herbal medicine industry on the Australian flora, and called for close ties between the industry and plant conservation. The Friends of Grasslands spoke of their efforts to conserve and raise the profile of one of Australia's most threatened ecosystems.

Paper sessions were followed by workshops, where delegates had the opportunity to shape ANPC's focus over the next two years.

Delegates endorsed the important role of ANPC regional groups in dissemination and application of science to on-ground projects and suggested

they increase their involvement in providing training and strong regional networking, targeting regions which include biodiversity hotspots where there is little plant conservation action currently.

In discussing ANPC's international role delegates resolved that ANPC needs to maintain its voice in international networks, and to provide assistance to surrounding countries as is deemed appropriate by those countries.

The workshop on *Conservation and Restoration of Ecological Communities & Ecosystems*

recommended that ANPC establish a working group to review existing restoration guidelines and accredit those which meet best practice in the area. This would include modifying guidelines to take into account gaps such as cryptogams and heavy metals.

ANPC would be grateful to hear of any existing guidelines, and any information can be sent to the National Office.

In discussing conservation actions for non-vascular plants, it was recommended that a working list of Australian Rare or Threatened Non-vascular plants be produced, similar to the existing list for vascular plants. This was originally proposed by Dr Tom May of Royal Botanic Gardens, Melbourne, as a ROTAF list (Rare or Threatened Australian Fungi) but was considered to be such an important initiative that it soon expanded out to cover all of the non-vascular plants.

In discussing the ANPC's training role, a list of training topics was compiled, and delegates recommended members commit to organising the

delivery of courses in regions. Priority regions were identified.

The *Research into Practice* session focused on the importance of translating the outcomes of science into practice. Continuation of the program of producing best practice guidelines, such as for *in situ* conservation and provenance, was considered an effective means of achieving these aims. It was also considered a priority that ANPC play a role in the assessment process for applications for grants such as through the Natural Heritage Trust and for conservation research.

Finally, the importance of effective partnerships was highlighted by a series of papers on linking government, industry and community, and on overcoming the increasing problems of fragmentation. It was recommended that ANPC coordinate the production of a set of guidelines on partnerships, and some of Australia's leading lights in forming partnerships have volunteered to collaborate on this.

See *Danthonia* insert for the full set of recommendations.

I would like to take this opportunity to wish you all the best wishes of the season, and a fabulous new millennium. It has been another outstanding year in terms of input to the Network by members, and this is the aspect of the Network I always reflect on at this time of the year, as it is only through this support that the ANPC continues to thrive.

Thankyou all sincerely, and we at the National Office look forward to working with you again in the new millennium.

ANPC's First Annual General Meeting

ANPC's first AGM since incorporation was held at Lake Hume Resort, Albury on the 26th November 1999 during the ANPC national conference. See the insert in this issue of *Danthonia* for a full report of the proceedings.

ANBG Receives Gold Sponsor Award



John Hicks, Director of ANBG, receives the Gold Sponsor award from Dr Kingsley Dixon, ANPC President and Director of Plant Science at Kings Park and Botanic Garden. Photo: Jeanette Mill

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Kingsley Dixon
President, ANPC Inc.

The Australian National Botanic Gardens is one of the ANPC's most generous and significant supporters. Since the creation of the ANPC in 1991, the ANBG has provided invaluable support through housing the National Office and providing salary for a half time Assistant Coordinator. This support was recognised in an award ceremony at the recent ANPC conference dinner, where John Hicks, Director of the ANBG, received a Gold Sponsor award from ANPC President, Dr Kingsley Dixon.

Silver Sponsor awards were received by Frank Howarth, Director of Royal Botanic Gardens, Sydney for sponsorship of the conference dinner and hosting the ANPC Sydney Region; Les Langford, Mayor of City of Albury for Albury City Council's sponsorship of conference organisation and hosting the ANPC South West Slopes Region; and Andrew Smith, Parks and Wildlife Service, Tasmania and WILDCARE, for organising and hosting the 1998 ANPC Plant Conservation Techniques Course and hosting the ANPC Tasmanian Region.



Fostering Effective Partnerships: A government perspective on the ANPC conference

Sarah Burke and Chris Lacey

Threatened Species Unit, Sydney Zone, NSW National Parks and Wildlife Service

In 1999, the NSW government launched the NSW Biodiversity Strategy (NSW National Parks and Wildlife Service, 1999). One of the broad objectives of the strategy is to "strengthen actions to inform, motivate and achieve the support of the community, including local and Aboriginal communities, industry, state government agencies and local government in conserving biodiversity".

Indeed, the first two specific objectives of the strategy, "to promote awareness and support, disseminate knowledge and ensure meaningful participation" and, importantly for this conference, "to establish community partnerships", reflect an understanding that the task of halting the decline of individual species, the ecosystems they form, and the ecological processes which underpin them, is one that is greater than any single agency, organisation or individual can tackle alone. Clearly, the creation of effective partnerships is crucial.

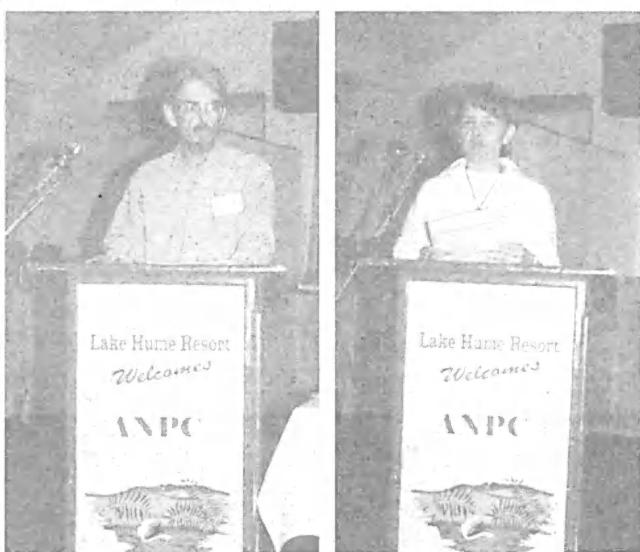
None of this is of course new. Nor is it rocket science. What is new is the successful implementation of such principles across a range of projects throughout Australia, and forums such as the Australian Network for Plant Conservation's recent conference, 'Promotion,

Practice and Partnerships', where successes (and indeed failures!) are told, experiences shared, and partnerships actually forged. The diversity of papers and posters presented at this conference is a testament to the success of the ANPC in bringing together a range of government and non-government natural resource managers, community interests and researchers in plant conservation.

The conference provided an opportunity to learn from some successful partnerships in operation. For example, Tasmania's 'Wildcare Incorporated' (Andrew Smith, Tasmanian Dept. of Primary Industries, Water and Environment) appears to be an excellent model for bridging the gap between government and the community. A direct outcome of the conference for us will be the likely future development of a Sydney Region ANPC volunteer database to document those groups and individuals with an interest in the implementation of recovery plans for threatened flora in the Sydney Region.

A critical issue for biodiversity conservation is the management of information. The lessons from New Zealand (John Sawyer, Dept. of Conservation, Wellington), where a systematic review of plant information was followed by the storing of that data in a central accessible database, were instructive (Ed: see *Danthonia* 8(2) Sept 1999). Information management is an ongoing issue in NSW. There data is stored in multiple agencies and at various scales, and access to that information is often difficult, can be expensive, and there exists a suite of 'grey literature' that is often unpublished and difficult to locate.

A further important issue for government agencies involved in natural resource management is the translation of scientific research into practical applications for managing and making decisions about biodiversity. The ANPC conference confirmed to us that research institutions are increasingly responding to this need, as demonstrated by papers and workshops on the practical relevance of conservation genetics (Siegy Krauss - Kings Park and Botanic Garden, Patricia Hogbin, Australian National University),



Left: Andrew Pengelly, Executive Director - Ethics & Conservation, National Herbalists Association, discusses the need for links between the herbal industry and plant conservation.

Right: Lucy Sutherland, from Botanic Gardens Conservation International, convenes the session on Partnerships.

Photos: Jeanette Mill.

on the application of smoke techniques for restoration projects (Michael Lloyd - Kings Park and Botanic Garden), and the research on the effects of fragmentation on plant reproductive processes (Geoff Burrows – Charles Sturt University, Brad Costin – La Trobe University). The conference provided us with the opportunity to articulate this need further and develop future potential partnership projects with researchers.

Of particular concern to us was the apparent absence of representatives from local government at the conference. In NSW, local government has a principal decision-making function under environmental assessment legislation and coordinates a range of local initiatives in plant conservation. Their future involvement in forums such as this conference is a crucial challenge for the ANPC. A greater regional presence of the ANPC will no doubt facilitate and engage local government involvement.

A key theme of several discussion workshops at the conference was articulating the future role of the ANPC as one of several organisations whose main interest is the conservation of plant communities in Australia. We see the ANPC as essential for assisting government agencies involved in plant conservation through:

- facilitating discussion between the various government, non-government and research interests in plant conservation;

- acting as a conduit for information about current plant conservation projects and plant research;
- developing best practice models/guidelines for plant conservation, such as the translocation and germplasm conservation guidelines (ANPC Translocation Working Group 1997; ANPC Germplasm Working Group 1997); and
- linking government with community groups and individuals interested in participating in the implementation of recovery plans for threatened plants.

The ANPC is well advanced in delivering these outcomes. In conclusion, we would like to take the opportunity to congratulate the conference organisers on what was a well conceived and presented conference. Congratulations!

References

- ANPC Translocation Working Group. 1997. *Guidelines for the Translocation of Threatened Plants in Australia*. ANPC, Canberra.
- ANPC Germplasm Working Group. 1997. *Germplasm Conservation Guidelines for Australia*. ANPC, Canberra.
- NSW National Parks and Wildlife Service. 1999. *NSW Biodiversity Strategy*. See the publications section in this *Danthonia* for further details.

Fungimap Workshop at the ANPC National Conference: A volunteer's view.

Pam Catcheside,

*South Australian Volunteer Fungimap Coordinator.
72 Eve Road, Bellevue Heights, S.A. 5050
email:dpcatchi@arcom.com.au*

The Fungimap Workshop at the ANPC Conference provided an excellent opportunity for participants to find out about Fungimap, to meet and exchange ideas, to get help with identification of specimens and to promote the cause of the fungi.

Fungimap is a fungal mapping project designed to collect data on the distribution of fungi throughout Australia. It was started in 1995 by Dr Tom May of the National Herbarium of Victoria, Melbourne in conjunction with John Julian from The Field Naturalists Club of Victoria. The project began by recording the general locality, grid references, date, habitat and host/substrate for sightings of eight target species. These were easy

to identify species such as the Fly Agaric, *Amanita muscaria*. In 1997 the list was extended to 50 and in 1999 to 100 species, including species thought to be rare. The specimens themselves are not collected but observers send written records into the Fungimap database at the Royal Botanic Gardens, Melbourne run by Pat Grey. Since the project began, over 5000 records have been sent in. Regional coordinators have been appointed in NSW, the ACT, WA, Tasmania and SA. The Fungimap project is supported by The Ian Potter Foundation.

There were about 20 participants in the Fungimap Workshop. Tom May introduced the session by explaining the history and aims of



Dr Tom May, Royal Botanic Gardens Melbourne, presenter of the Fungimap workshop (centre) and Fungimap volunteers enthusiastically discuss fungi identification. Photo: Jeanette Mill

Fungimap and went on to describe the macroscopic features used to identify fungi. He concentrated on the gilled variety as these are probably the most obvious and numerous of the larger fungi. There was then a practical session in which participants, helped by Tom and Pat and the regional coordinators present, described and identified specimens provided using keys to genera. This was particularly useful in giving people confidence to tackle the fungi.

Pat Grey explained the format for sending in records to Fungimap and described the process of working out grid references. She then showed slides of a number of the 100 "target" Fungimap species. Questions from the participants showed considerable interest and excitement about Fungimap and fungi. For a fungophile such as myself such enthusiasm was invigorating and heartening. The fungi, partly because of the ephemeral nature of their fruiting bodies, are a group of organisms often overlooked. Only 5-10% of fungi in Australia are described. One of the bonuses of the Fungimap project is that it helps to educate the community about the fungi and their essential roles in ecosystems.

Explaining the Fungimap project was one important issue for the "fungal people" at the conference. However, another major issue is the lack of knowledge of the conservation status of fungal species. There are next to no fungi listed on the various commonwealth and state rare and threatened species lists - there should be. The Fungimap records will make a significant contribution to decisions on the rarity or otherwise of a species. The fungi, with their

importance in mycorrhizal associations with higher plants and their role as recyclers, are an essential part of the environment and it is crucial to the welfare of the environment that conservation status of fungal species is investigated.

But all the cryptogams are in need of love and attention. One of the heartening things I experienced at the conference was the general and genuine concern for these orphan groups. We heard about the lichens and bryophytes forming the protective soil crust and the importance of the nitrogen fixing algal partner in the lichen association. The case for the cryptogams was made persuasively by Katrina Jensz, Patricia Selkirk & Bob Makinson, David Eldridge, Tim Entwistle and others.

As a relative newcomer to the "official" conservation scene, I enjoyed the informative talks, the passion of the speakers for their subjects and was impressed by the balanced perspectives on the management of plants and their environments. The Discussion Workshops enabled further fact gathering, exploration of important issues and, of course, networking.

For more information on Fungimap contact:

Dr Tom May
National Herbarium of Victoria
Royal Botanic Gardens Melbourne
Birdwood Avenue
South Yarra, Victoria 3141, Australia
Tel: (03) 9252 2319
Fax: (03) 9252 2350
Email: tmay@rbgmelb.org.au

Research and Practice: The vital link. A scientist's view of the ANPC conference

Siegy Krauss

Botanic Gardens and Parks Authority, Kings Park and Botanic Garden, Perth and Adjunct Lecturer, Faculty of Agriculture, University of Western Australia

The effective and efficient conservation, restoration or rehabilitation of native plant species and communities requires research focused on practical outcomes. A striking example was demonstrated recently in experiments on provenance by Knapp and Dyer (1998), who showed that the use of non-local forms of Purple Needlegrass (*Nassella pulchra*) in restoration projects resulted in four times higher mortality compared to local seed of the same species. However, far too often, this sort of research gets no further than publication in specialist scientific journals, which are largely inaccessible to managers and relevant community groups. This problem is being addressed, and the ANPC is playing a leading role in facilitating communication between researchers and managers through meetings such as the recent ANPC fourth national conference in Albury.

The communication issue works both ways, of course, and for me (as a researcher), a highlight

of the conference was being exposed to, and challenged by, some of the practical plant conservation issues facing managers and community groups. Consequently, before conducting and communicating the results of research, it is vital to identify what research is required, how research might fit into conservation activities currently underway, and perhaps most importantly, how research can achieve a practical outcome for conservation. One fine example of this was presented by Erica Higginson (NSW National Parks and Wildlife Service), who described how Kevin Thiele and Suzanne Prober are building on their years of research on the conservation of grassy box woodlands to achieve a conservation management network for this endangered plant community.

'Research into practice' was an underlying theme of many of the presentations and posters, but was a specific focus for four talks in the Saturday morning session. I was presented with



Michael Lloyd, Kings Park and Botanic Garden, bringing results of research to practitioners in the Smoky Success workshop, where the use of smoke to promote germination was demonstrated. Photo: Jeanette Mill.

the daunting challenge of making genetics interesting at 8.30 on the morning following the conference dinner. Through five examples of research work conducted at Kings Park, I attempted to highlight how genetics research is of practical relevance. Major issues included provenance delineation and the identification of mating patterns, and especially inbreeding. Powerful new genetic markers offer particularly exciting prospects through the detailed characterisation of genetic variation and mating patterns in *in situ* and *ex situ* collections. Liz James (Royal Botanic Gardens, Melbourne) reinforced the importance of the soil seed bank when assessing questions of rarity in *Adriana quadripartita*. Geoff Burrows (Charles Sturt University) showed how undergraduate students can provide an excellent resource for the collection of vast amounts of data on seed production in woodland and isolated plants of yellow box. His results warned against collection of seeds from isolated plants, as these seeds are genetically inferior to woodland seeds, presumably due to increased levels of selfing. Brad Costin (La Trobe University) assessed the effects of fragmentation in the vulnerable daisy *Leucocrysum albicans*, and found that population size had little effect on seed set and germinability, due to self-compatibility. These results indicate that more immediate factors, such as habitat maintenance, are more important for the conservation of this species than population size *per se*.

Pure research is vitally important for the understanding of evolutionary and ecological processes in natural populations, with real but indirect benefits to conservation. However, there is a growing shift amongst researchers, directed by conservation funding agencies and the community, towards achieving practical conservation outcomes. Networking between managers, government agencies, community groups and researchers is the key to achieving these outcomes. The ANPC plays a leading role in promoting these networks. On the one hand, I encourage the ANPC to increase the membership and involvement of researchers. However, I also encourage non-researchers involved in conservation activities to make contact with researchers in your local university or government agency to encourage involvement, input and research into your practical activities. Getting a PhD project up and running as part of your activities is a great investment towards achieving more effective practical conservation!

Reference

Knapp, EE. and Dyer, AR. 1998. When do genetic considerations require special approaches to ecological restoration? In: Fiedler, PL. and Kareiva, PM. (eds) *Conservation Biology for the Coming Decade* (2nd ed). Chapman & Hall, New York.

The Link Between ANPC and the Scientific Community

At the recent ANPC 4th National Conference it became obvious that land managers at all levels and on all land tenures are crying out for scientific research relevant to their issues. To assist in achieving this, the ANPC has identified two ways its members can have greater access to scientific information:

1) Maria Matthes (NSW National Parks and Wildlife Service) has offered to post questions from ANPC members on the Ecological Society of Australia list server. These questions will go to environmental and ecological scientists around the country. Maria will send the answers back to you. Questions may be:

- related to available literature about a specific or general topic/issue/species; or
- seeking guidance and direction for a particular project.

The number of questions asked is only limited by your needs. So if you have a question please contact Maria on Tel: (02) 6659 8239; Fax: (02) 6651 5356; Email: maria.matthes@npws.nsw.gov.au

2) A page (or more) in future issues of *Danthonia* will be dedicated to the latest science being undertaken or recently completed. This will also include the questions and answers from the ANPC-ESA link described above. So please send any references, abstracts, discussions and snippets to ANPC.

The ANPC Conference: A community perspective

Sue Rose and Judy Frankenberg,
West Hume Landcare Group

Sue and Judy belong to the West Hume Landcare Group located in the wheat sheep belt of the South West Slopes of New South Wales. Here they describe the work of the group and the value of the ANPC conference.

The West Hume Landcare Group formed in 1989 primarily in response to recognition of rising water tables and dryland salinity. A deep bore survey indicated average rates of groundwater rise of 60cm per year caused by the loss of deep rooted perennial (native) vegetation. Catchment studies carried out by NSW Department of Land and Water Conservation reveal less than 5% of each catchment has greater than 20% tree cover. Most of our remaining native vegetation is located along roadsides or private laneways. The group comprises three catchments, about 62,000ha, 30km north-west of Albury, and has an annual membership of over 100.

In 1991/2 the group carried out one of the first native vegetation surveys along roadsides. A

remarkable 38 people from the farming community volunteered their assistance to survey over 400km of roadside. This greatly increased local people's awareness of native plants, especially the understorey, and 111 native species were identified; the most alarming finding was the virtual absence of shrub cover. Seven years later our continued observations indicate ongoing degradation and losses of native species, such as *Stackhousia monogyna*, *Daviesia genistifolia*, *D. ulicifolia*, *Eutaxia microphylla* var. *diffusa*, *Pultenaea largiflorens* and *Burchardia umbellata*.

We keep up a low key awareness campaign of plant losses and the importance of understorey species to the health of woodland vegetation. Roadside signs have been erected with the cooperation of local shire councils but we feel we need to work more diligently with council to protect native species. A handful of people collect local seed for farm revegetation work. Over the past three years the group has ordered around 40,000 trees and shrubs, mostly propagated from local seed. With the assistance of Greening Australia we are establishing seed production areas. The group's work has resulted in several local native species becoming more widely used in farm revegetation work eg. *Acacia montana* (Mallee Wattle), *Dodonaea viscosa* ssp. *cuneata* (Wedge leaf Hopbush) and *Allocasuarina luehmannii* (Buloke). We have become increasingly aware of the loss of understorey and its general poor health and resulting difficulty in collecting propagation material. One of our newest pet projects is how we might go about reintroducing native understorey species - the *Lomandras*, *Dianellas*, native herbs and grasses etc.

Environmental education is another vital element of our work, with close involvement with Wirraminna - a locally developed environmental education centre with a focus on promoting native plants - and through seed collecting, propagating and planting activities with local school children. As a landcare group this involvement of young people is seen as crucial to our future. For all these positives a great



Geoff Holloway, West Hume Landcare Group's Project Officer with one of 18 Significant Roadside signs erected in the landcare area on 'high conservation area' roadsides

challenge still exists - preventing further species losses, re-establishing large scale native vegetation systems, and protecting and managing the few remnants we have left.

The conference was our first experience of the ANPC - we were excited to hear of such a conference on our doorstep. It was an interesting change from the conferences we have attended in the past, which have a more ecological or resource management focus. We have an interest both from our work as plant ecologists, and as farmers with an active involvement in landcare. It was very encouraging to discover the amount of work which is underway on particular species and their conservation. In our ecological work we are always coming up against the problem that we just do not know enough about the individual species, whether rare or common (*Editor's note - see page 10 of this issue for details of how ANPC hopes to improve links between research and practice*).

Whilst neither of us were able to attend the full conference, due to a range of demands on our time, the papers we heard were all well presented and interesting, giving us quite a few leads to

follow up. We came away with a lot of ideas about what more we could do locally to protect our last remnants of grassland and shrub understorey species. The posters were a great help in appreciating the range of projects being carried out. It was also a pleasure to meet and talk to people who work with plants.

A number of people from local nurseries, the Society for Growing Australian Plants and Landcare joined us for the practical plant conservation workshops on the Sunday. All who attended enjoyed the day, although felt it was heavy going (academic wise). But they especially liked the sessions on smoke germination (Michael Lloyd, Kings Park and Botanic Garden), and on propagation by Joe McAuliffe (Australian National Botanic Gardens), meeting like-minded people and viewing the displays - some real life plant material might have been an effective way to reach us novices. We felt the IUCN session was beyond us but appreciated it and the presence of David Keith from Sydney. The last part of the Wollemi Pine session was sheer entertainment.

We hope to join ANPC ourselves now we know about it!

Extinct Daisy Rediscovered in South Australia

Manfred Jusaitis and Anthelia Bond
Conservation Biology Unit, Plant Biodiversity Centre, South Australia

The presumed extinct Spiny Daisy, *Acanthocladium dockerri*, was rediscovered near Laura in the mid-north of South Australia in August 1999. Two populations about 5 km apart were found by local farmer Paul Slattery. Within a month of this find, another population of *A. dockerri* was discovered 70 km further south, near Brinkworth, by local farmer Coral Dutschke. All three populations occur along roadsides.

Known only from a handful of herbarium collections, *A. dockerri* has not been collected from the wild for nearly 90 years. Originally collected by Dr H. Beckler of the Burke and Wills Expedition in 1860 from near Menindee on the Darling River (New South Wales), the only other collections are from "River Murray" and "Overland Corner" in South Australia made in 1910 (Davies, 1992).

A. dockerri is a member of the Compositae (daisy) family. It is a small, rigid shrub with greyish leaves and stems (see photo), and from afar looks just like the Common Bluebush (*Maireana sedifolia*). Stems and leaves have a woolly covering and stems terminate in sharp spines. Fresh growth quickly becomes woody. Plants averaged between 400-600 mm in height, although some plants seen growing along a fence-line were up to 1 m high.

Plants near Laura were observed in bud during August, and flowering in spring. The involucral bracts surrounding the buds have a lovely golden sheen, but when open, flowers are rather unremarkable in appearance. Flower heads expand and open out as the feathery plumes above each seed spread out during fruit development. These feathery plumes attached to the seed indicate that wind-dispersal is the primary mechanism of seed spread.

The Spiny Daisy appears to sprout readily from

roots. Plants were observed resprouting from injured roots after a road-grader had exposed them. Plants were also observed regenerating in a wheat crop adjacent to the roadside population. These plants had apparently tolerated the cultivation and herbicide regimes applied to the crop, suggesting that some disturbance may not necessarily be detrimental to regeneration of the plant. Trials are currently under way to determine the best method to propagate the species.

Seemingly mature seeds collected during early spring appeared to be undeveloped, containing no endosperm or embryo. This may indicate a lack of suitable pollinators, although a range of potential pollinators, including flies, wasps, and butterflies were seen on flowers at Laura. Alternatively, if populations are largely in-bred or clonal, flowers may need to be cross-pollinated to set viable seed. The existence of plants arising from root suckers indicates that individual populations are at least partially clonal. All populations seen so far contained relatively few plants (200-400) spread over fairly small areas (30-60 m of roadside). The extremely narrow distribution within each population, in a species that appears to produce copious quantities of seed, adds further weight to the possibility that seed may be sterile.

Several seed heads were found infested with a small caterpillar that was targeting the undeveloped seed. It is yet to be determined whether this constitutes a threat to the species. The Brinkworth population was heavily infested with weeds, and the local revegetation group has begun a program of weed-pulling to keep these weeds under control.

It is quite possible that further populations of *A. dockeri* may be found now that the plant has been rediscovered, and these could turn up not just in South Australia, but potentially Victoria and New South Wales too. It is easy to understand why the daisy has not been noticed for so long, because from a distance it looks like so many other common native plants in appearance. The characteristic spines and gold/bronze coloured buds are distinctive features that should help in identification. If you think you may have found some more of these plants, please contact the authors at the address below.



Stem, buds and flowers of *Acanthocladium dockeri*. Photo: M. Jusaitis

Please note these are new contact details:

Conservation Biology Unit, Plant Biodiversity Centre, Hackney Rd, Hackney, SA 5069. Ph: (08) 8222 9306; Fax: (08) 8222 9353; Email: mjusaitis@dehaa.sa.gov.au

A similar article was first published in the newsletter SA Veg. On the Edge, and is printed here with their kind permission.

Reference

Davies, R. J.P. 1992. *Threatened Plant Species of the Murray Mallee, Mount Lofty Ranges and Kangaroo Island Regions of South Australia*. Conservation Council of South Australia Inc.

Weedbuster Week: Building public and industry support to tackle environmental weeds

Sharon Corey
CSIRO Entomology
CRC for Weed Management Systems

Weeds invasion is one of the most serious and expensive land degradation problems in Australia. On a global scale, alien species invasion (which includes weeds) is rated as the second biggest threat to biodiversity behind habitat loss. At an estimated annual cost of over \$3.3 billion every year in terms of losses in Australian agricultural production alone, the problem of weed control is huge. Putting a cost on the environmental damage is almost impossible.

Although much more funding is required, in recent times environmental weeds have started to attract the attention they deserve. Research organisations, such as those involved in the Cooperative Research Centre for Weed Management Systems, have been tackling the problems on many fronts. Research is being conducted into the use of herbicides, plant competition and fire as weed management tools. Another approach is the use of biological control. Some of the Weeds of National Significance (WONS) are targets for biological control such as Mimosa (*Mimosa pigra*), Bridal Creeper (*Asparagus asparagoides*), Blackberry (*Rubus fruticosus* agg.) and Bitou Bush (*Chrysanthemoides monilifera*). Across the nation there are also small groups of dedicated members of the community who tirelessly hand-pull weeds. In the case of Bitou Bush, Scouts have abseiled down cliffs to remove plants from crevices.

Tackling environmental weeds requires that a range of strategies is put in place which involve a number of different groups and organisations all working towards the same goal – weed control. Through the National Weed Strategy the development of the WONS list has given a focus to some of the major weed problems and is leading to the development of strategic management plans for each of those weeds..

Weedbuster Week – Raising awareness and building partnerships

Public awareness is a vital element in any weeds strategy. That's where a campaign such as Weedbuster Week comes to the fore. Weedbuster Week is a national community

event aimed at raising public awareness about the economic, social and environmental problems caused by weeds.

The majority of environmental weeds in Australia were deliberately introduced as garden plants and they have escaped into the bush. In order to help prevent the spread of these 'garden thugs' it is important that people make informed choices about the type of plants they put in their garden and how they dispose of the plants they no longer require. Whilst education is an important process in weed reduction, ultimately there will always be someone ready to buy what is available to them on the shelf.

Nationally, through the Weeds CRC, there has been a substantial amount of work done with the Nursery Industry Association of Australia to develop a strategy and national guidelines for the sale of ornamental species. Of course the nurseries are not the only people selling plants and there is more work to be done in the future.

For the ACT the challenge in 1999 was to get agreement from major retail stores not to sell plants that were listed as weeds in the ACT region. In a national first, Bunnings Warehouse and Magnet Mart executives announced at the ACT launch of Weedbuster Week that they would take on the challenge of not stocking those listed plants and would offer alternatives to those plants they would no longer sell. They felt it was an important part of their involvement with the community that they should do their best not to contribute to any worsening of the ACT's environmental problems.

It is anticipated that the success of the ACT push for support will pave the way for other companies within the ACT and across the nation to join the Weedbuster Week campaign for the benefit of our natural environment.

This is the third year of the national



Weedbuster campaign and activities included weed pulling days, library displays, shopping centre visits by Woody Weed, radio debates, launches of Weedbster Week for every state, workshops, seminars and thousands of children participating in a colouring competition.

The success of Weedbster Week as an education campaign is attributed to community participation and the support from the media, the Weeds CRC, private enterprise and government. Awareness about the enormity of the problem and the impact of weeds on all individuals needs media attention to reach the broadest range of people possible. The problem of environmental weeds is relevant to everyone who has ever owned a garden or planted a plant. It is up to each individual to decide whether they want that impact to be a negative or a positive one for our future.

For more information contact Sharon Corey, CRC for Weed Management Systems, CSIRO Entomology, GPO Box 1700, Canberra ACT 2601. Phone (02) 6246 4136; Fax (02) 6246 4177; e-mail: sharon.corey@ento.csiro.au

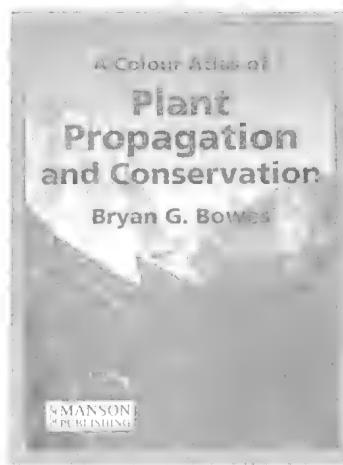
Weedbster Week information:

www.weedbsterweek.info.au

Book Review

by Lyn Meredith

A Colour Atlas of Plant Propagation and Conservation. 1999. Bryan G. Bowes (ed.) ISBN 1-874545-92-8. Manson Publishing Ltd., \$90



"The world, we are told, was made especially for Man - a presumption not supported by the facts. A numerous class of men are painfully astonished whenever they find anything, living or dead, in all of

God's universe, which they cannot eat or render in some way what they call useful to themselves. Why should Man value himself as more than a small part of the one great unit of creation? ...The universe would be incomplete without Man; but it would also be incomplete without the smallest transmicroscopic creature that dwells beyond our conceitful eyes and knowledge."

Words of John Muir, one of the 'fathers of conservation', quoted in the introduction to this atlas by its editor, Bryan G Bowes of the University of Glasgow. At my present advanced age I lean more towards the philosophical justifications for conservation than the scientific. We know what to do; we often lack the moral commitment to do it. It seems to me that scientists have, or claim to have, most of the answers and this atlas is a useful, and more important, an up-to-date overview of the scientific techniques for propagation.

Those with a better grounding in the English language than I will know that an atlas is not only a collection of maps but also "a volume of plates or tables illustrating any subject" (Macquarie Dictionary). The way the atlas works is to accompany the excellent articles with references to colour photographs throughout the text, so that one is often jumping around the book for illustrations of a particular point. This could be annoying but I found it useful since it helped to put a picture into more than one context.

There are many Australian examples for the chauvinist, a refreshing change from texts which are usually northern hemisphere-based. Several Australian workers who will be known to members of ANPC have contributed to the Atlas; Don Blaxell of RBC Sydney on "Collection of Plant Specimens in the Field", Eric Bunn of Kings Park with others on "In vitro Propagation", and Darren Touchell and Kingsley Dixon on "In vitro Preservation".

Other chapters address issues of diversity, seed and vegetative propagation, fire and smoke and, for me, a particularly interesting piece on the role of mycorrhizae in regeneration of native vegetation in California.

Each chapter has a list of further references for those who wish to delve deeper into the subject, adding up to an extensive bibliography of plant conservation. Additions to the bibliography could have included the ANPC's "Guidelines"

EXPRESSIONS OF INTEREST

ANPC Plant Conservation Techniques and Orchid Conservation Courses

The ANPC will be running its internationally renowned Plant Conservation Techniques Course on the North Coast of NSW and in Victoria in the year 2000, if there is sufficient interest. Previously this course has been run in Canberra and Tasmania, and has been oversubscribed with participants attending from as far away as Hong Kong. Places are limited, so if you are interested in attending, contact the organisers to express your interest.

The course will be targeted at private landholders, local government, community group facilitators, state and federal government and industry groups.

Course content will include material on:

- Background to rarity in flora species
- Targeted survey for threatened flora
- Research and monitoring programs for threatened flora
- Managing threatened flora and endangered ecological communities

The course may be run as a 7-10 day course or as separate modules run on a weekly basis. Please contact the people below to express your interest in attending the long course or modules and what topics are of most interest or relevance to you.

Special bursaries may be available to botanic gardens (including regional gardens) to assist with the cost of attending.

If you would like more information or are interested in attending please contact:

- Jeanette Mill, National Coordinator, ANPC, (02) 6250 9509, email anpc@anbg.gov.au;
- and/or for NSW North Coast course Maria Matthes (NSW National Parks and Wildlife Service) on (02) 6659 8239, e-mail: maria.matthes@npws.nsw.gov.au
- or Maurizio Rossetto (Southern Cross University, Centre for Plant Conservation Genetics) on (02) 66203458; e-mail: mrossett@scu.edu.au

Orchid Conservation Course

Kings Park and Botanic Garden and the ANPC are also planning an orchid conservation course, to be held in Perth around late May 2000. Expressions of interest for this course should be directed to Dr Kingsley Dixon, Kings Park and Botanic Garden on ph (08) 9480 3637, email kdixon@kpbwg.wa.gov.au

(for germplasm conservation and for the translocation of threatened plants) that have received critical acclaim, but perhaps the preparation of the atlas preceded their release.

This is a manual of *ex situ* conservation techniques, with one chapter by David Rae of RBG Edinburgh on "Conservation of Natural Populations" and a chapter on "Conservation and the Future" by Ghillean Prance, then Director of RBG Kew. It is unlikely that the active conservation scientist will learn much from the atlas but those of us with a more general interest in plant conservation will find much of interest.

It can be ordered within Australia from Blackwell Science Asia Ltd., 54 University Street, PO Box 378, Carlton South, Victoria 3053. Tel: (03) 9347 0300. Fax: (03) 9347 5001. E-mail: info@blacksci-asia.com.au

Publications

The National Weeds Strategy: A strategic approach to weed problems of national significance.



Agriculture and Resource Management Council of Australia and New Zealand, Australian and New Zealand Environment and Conservation Council and Forestry Ministers. Revised edition (1999).

This revised edition updates the original version of the strategy

published in June 1997. The purpose of the strategy is to reduce the detrimental impact of weeds on the sustainability of Australia's productive capacity and natural ecosystems.

Free copies available from Environment Australia. Ph: 1800 803 772.

State of the Environment Queensland 1999.
Environmental Protection Agency and the
Queensland Parks and Wildlife Service. (1999)

This is the first comprehensive assessment of Queensland's environment. It establishes an information base that will contribute to improved environmental management in Queensland. The report is a valuable resource for environmental managers, scientists, educators, community groups, students and anyone interested in Queensland's environment. Key issues and findings, the executive summary and fact sheets can be downloaded from the Environmental Protection Agency and the Queensland Parks and Wildlife Service's website, as can an order form for those interested in purchasing some, or all, the various elements of this report: <http://www.env.qld.gov.au/environment/science/environment/welcome.html>

Alternatively, contact the following: Tel: (07) 3227 8197; Fax: (07) 3227 8749; E-mail: nqic@env.qld.gov.au

NSW Biodiversity Strategy.
NSW National Parks and Wildlife Service. (1999)

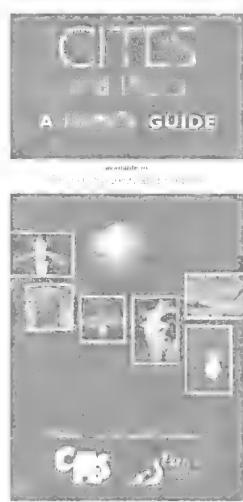
The NSW Biodiversity Strategy commits all government agencies to working towards conserving biodiversity in New South Wales. A range of projects will be undertaken by a number of government agencies, including State Forests, the Department of Land & Water Conservation, the Royal Botanic Gardens, the Zoological Parks Board, the Australian Museum, NSW Fisheries, and the National Parks & Wildlife Service. Many Strategy objectives and actions are interlinked and their progress will be monitored by the Biological Diversity Advisory Council (BDAC). The National Parks & Wildlife Service is responsible for overall coordination.

Details on the objectives of the Strategy, specific program actions (and their lead agencies), and performance targets are contained within the document. The NSW Biodiversity Strategy is provided for reference on the NSW NPWS website: <http://www.npws.nsw.gov.au/wildlife/biodiversity.html>.

Copies can also be obtained from: NPWS Information Centre. Tel: (02) 9585 6444 or 1 300 361 967; Fax: (02) 9585 6555

CITES and Plants: A user's guide.

Sandison, MS., Muñoz, MC., de Koning, J. and Sajeva, M. Royal Botanic Gardens, Kew. (1999)



CITES – the Convention on International Trade in Endangered Species of wild fauna and flora – was established with the aim of controlling and monitoring the international trade in plants and animals considered to be threatened, or likely to become threatened by such trade. It is a little known fact that CITES gives international protection

to about five times more plant than animal species. Too few people are familiar with the plants listed or how the Convention affects them. One obstacle has been the shortage of suitable training materials. This new guide is intended to remedy this, providing an introduction to CITES and plants. It includes 40 colour slides, speaker/student notes and information on aspects of CITES.

For details of how to obtain a copy (price on application) please contact CAPS (CITES Slide pack), Herbarium, Royal Botanic Gardens, Kew. Fax: + 44 (0)20 8332 5757; E-mail: info@rbgkew.org.uk

Easy Identification of Native Plants of South Australian Watercourses.
Bob Myers. (1999)

Bob Myers, a Birdwood farmer, has developed a handy six-page identifier for the native plants of South Australian watercourses. The leaflet features three pages of coloured photographs plus detailed line drawings. It should enable easy differentiation between the plant families of sedge, rush, bulrush and grasses.

Price: \$3.95 (plus 85c postage). Discount for multiple-copy orders. Contact Bob Myers, PO Box 250, Birdwood 5234, SA.

Electronic Addresses

FloraBase



FloraBase is a search engine developed by the Western Australian Herbarium, CALM, to provide up-to-date information on the names of Western Australian plants. It also includes distribution maps and short descriptions of each plant species, plus photographic images of native plants.

Access to FloraBase is free at the general user level, although due to the cost of maintaining the Herbarium collection and the databases that make up FloraBase, access at a more advanced level requires a payment after registration.

<http://florabase.calm.wa.gov.au/>

Conservation/Geography: A new ESRI Conservation Program Web Site

The ESRI Conservation Program is the non-profit support arm of the California-based Environmental Systems Research Institute (ESRI). The Program helps to create and develop spatial analysis, computer mapping and geographic information systems (GIS) capability among thousands of non-profit organisations and individual projects of all sizes and types worldwide. They do this by donating and providing millions of dollars worth of computer technology and training for groups just beginning to work on geographic problems, on an ongoing basis, and for advanced groups at the cutting edge of conservation biology and spatial sciences.

Visit this site to find out about funding opportunities, free downloadable GIS data viewers and data, plus world maps, training in GIS, and so on.

<http://www.esri.com/conservation/>

NSW Threatened Species Recovery Plans

The Draft Recovery Plan for *Prostanthera junonis* (Somersby Mintbush) will be available for public comment from 7 January - 29 February 2000. You can either get a hard copy for \$7.50 from Jeanette Curran Ph 02 9585 6913 or the plan can be accessed via the NSW National Parks and Wildlife

Service website http://www.npws.nsw.gov.au/news/recovery_plans/index.html

Also visit this site to download final, draft and consultation recovery plans for *Wollemia nobilis* (Wollemi Pine), *Zieria prostrata*, *Angiopteris evecta* (Giant Fern), *Eleocharis tetraquetra* Square-stemmed Spike-rush, *Allocasuarina portuensis*, and *Hakea pulvinifera*.

The Fern Pages: A guide to Pteridophytes: The ferns and their allies

This resource, compiled at the Australian National Herbarium, is under development and is intended to include information about the taxonomy and distribution of Australian and regional ferns and their allies as well as general information about pteridophytes. It already includes links to websites and databases that deal with pteridophytes, as well as a host of information ranging from guidelines on collecting ferns, to fern reproduction and life cycles, to checklists of ferns and fern allies of the ACT and south coast NSW:

<http://www.anbg.gov.au/projects/fern/>

Association of Societies for Growing Australian Plants (ASGAP)

This is an excellent site, packed with information such as advice on propagation, native and exotic weeds, bush regeneration, a plant photo library, on-line newsletters, event listings and links:

<http://farrer.riv.csu.edu.au/ASGAP/>

Conferences

Beyond the Beach. Coast to Coast 2000. Australia's National Coastal Conference

6 - 9 March 2000, Melbourne Convention Centre, Victoria.

Convened by the Victorian Coastal Council, key issues to be explored will include marine management, the relationship between the foreshore and the hinterland and the host of challenges affecting sustainable coastal use and development.

Update on Native Vegetation Management Reform in Queensland

On 8 December 1999, the Queensland Government introduced legislation to control tree clearing on freehold land. Several articles on the legislation can be accessed via the Community Biodiversity Network website at:

http://www.nccnsw.org.au/member/cbn/news/media/19991203_53_toc.html

For more information, contact The Conference Organisers Pty Ltd. Tel: (03) 9521 8881; Fax: (03) 9521 8889; E-mail: conforg@ozemail.com.au; www: http://www.vcc.vic.gov.au



Inaugural Australian Native Grass Conference

16 - 17 March, 2000, Mudgee, New South Wales
Registration fee around the \$160 mark.

The conference will explore the uses and role of native grasses in a modern and sustainable agricultural landscape. Key issues will include combining native pastures management for productivity with conservation, latest developments in native grasses technology, as well as the development of a commercial native grass seed industry.

Aimed at landholders with existing stands of native grass, or those who wish to develop native pastures, government agency and private industry personnel, consultants, seed suppliers, ecologists, university staff, students and so on.

For further information contact: Stipa Native Grasses Association, Mike Byron, P.O. Box 500, Gulgong, N.S.W., 2852, Ph: (02) 6374 2005; Email: stipa@coolahddg.com.au; Web site: www.coolahddg.com.au/stipa

NCC Ecological Bush Fire Conference 2000

24 - 25 March, 2000, Sydney, New South Wales
Red Truck: Green Future is the theme of this conference. Topics will cover how to implement ESD in bush fire management; best practice ecological fire management; bush fire management and the *Native Vegetation Conservation Act 1998*; bush fire management and the *Threatened Species Act 1995*; community responsibilities, awareness and rights in bush fire management; clarifying the bush fire related legislation.

For further details or to register interest, contact Tanya Leishman on Tel: (02) 9279 2466; E-mail: bushfire@nccnsw.org.au; Website: http://www.nccnsw.org.au/bushfire

Partnerships Within and Beyond the Garden. The first ever World Botanic Gardens Congress

25 - 30 June, 2000, Asheville, North Carolina, USA
Co-hosted by the American Association of Botanical Gardens and Arboreta (AABGA), the Center for Plant Conservation (CPC), Botanic Gardens Conservation International (BGCI) and the North Carolina Arboretum. A major objective will be to forge deeper and more diverse partnerships with other sectors of the botanical, horticultural and conservation communities.

For further information, contact Peter Wyse

Western Australia to Host First International Orchid Conservation Congress

Kings Park & Botanic Garden in conjunction with the Orchid Specialist Group of the Species Survival Commission of IUCN (The World Conservation Union) and Botanic Gardens Conservation International have recently announced the 1st International Orchid Conservation Congress, 24-28 September 2001, to be held in Perth, Western Australia.

The Congress will bring together for the first time orchid conservation specialists, researchers and practitioners, to develop an understanding of global issues in orchid conservation. The Congress will cover topics including phylogeny of the Orchidaceae, population biology, pollination biology, propagation science, germplasm storage, conservation genetics and taxonomy with opportunities for specialist workshops in orchid conservation techniques and orchid recovery programs. Pre- and post-conference tours will explore the incredible diversity of orchids and remarkable wildflowers of south west Western Australia. ANPC is one of the conference sponsors.

The first circular will be available in April 2000 and a call for papers will follow soon after. To register your interest contact: The Congress Secretariat, Dr Kingsley Dixon, Kings Park & Botanic Garden, West Perth 6005, Western Australia. Tel: (08) 9480 3614; Fax: (08) 9480 3641; Email: orchidcongress@kpbwg.wa.gov.au



Jackson, BGCI. Fax: +44 208 8442 6904;
Email: pwj@bgci.rbgkew.org.uk



Gardens 2001 Congress: Public Gardens in the 21st Century: Conservation, Culture or Crass Commercialism?

17 - 21 April 2001, Manning Clark Centre, Australian National University, Canberra. This congress will seek to position botanic gardens in the new millennium, exploring the areas of horticulture, plant sciences and conservation, public programs and modern management practices.

For more information, contact the Australian Convention and Travel Services, GPO Box 2200, Canberra, ACT 2601. Tel: (02) 6257 3299; Fax: (02) 6257 3256;
E-mail: gardens2001@ausconservices.com.au; Website: <http://www.ausconservices.com.au>

Our national work

Workshop on Recovery Planning and Bush Foods

Wednesday 23 February 2000. Venue and time to be advised

The NSW National Parks and Wildlife Service is currently preparing Recovery Plans for the threatened species *Davidsonia pruriens* var. *jerseyana* (Davidson's Plum), *Davidsonia* sp. A (Smooth Davidson's Plum) and *Diploglottis campbellii* (Small-leaved Tamarind). The wild picking and harvesting of these species is 'contentious'. As part of the recovery plan, the NPWS is looking at establishing mechanisms to ensure wild collection of material is undertaken in an appropriate and legitimate manner. To this

end, the NPWS is holding a workshop with the bush food industry to discuss:

- The role of the bush food industry in the conservation of these endangered plants.
- Proposed and potential actions in the recovery plans for these species.
- Mechanisms for reducing the impact of wild harvesting on these species.
- Any other issues that the bush food industry may wish to raise with the NPWS in relation to threatened species and the industry.

All interested growers, suppliers, distributors and retailers of native bush foods are invited to attend. Please include the following information in your RSVP:

- If you wish to attend. If you are not able to attend but are interested in receiving workshop outcomes and participating in follow-up consultation.
- Any issues you may wish to discuss on the day.
- Your name, address, telephone number and e-mail address if you are planning on attending or want to be kept informed.

Please RSVP by **31st January 2000** to:

Maria Matthes, Threatened Species Officer, NPWS Northern Zone, Locked Bag 914, COFFS HARBOUR NSW 2450. Tel: (02) 6659 8239; Fax (02) 6651 6187.
E-mail: maria.matthes@npws.nsw.gov.au

Native Vegetation Information Forum

January and March 2000, Holbrook and Gundagai, NSW

The Riverina Highlands Regional Vegetation Committee is holding a forum for landholders to inform them and give them an opportunity for input into the draft Riverina Highlands Regional Vegetation Management Plan. There will be

New Wetlands Network

A new network, *WetlandLink*, has recently been established by Wetland Care Australia. Its aims are to help link groups and individuals working to restore and manage Australia's wetlands. *WetlandLink* will comprise a regular bulletin, Internet site and email discussion group. The aim is to create a framework for those undertaking wetland management and rehabilitation to learn through the experience of others. The network will facilitate exchange of information such as case studies of practical wetland management, summaries of recent research, access to technical advice, information on upcoming events, government policy updates and so on.

For more information, or to become involved, contact: Brendan Lee, Network Manager; Tel: (02) 6681 6069; Fax: (02) 6686 8907; Email: wca@linknet.com.au

speakers from NSW Farmers, local government, Greening Australia, Aboriginal interests, and DLWC.

For more information, contact the Acting Executive Officer on Tel: (02) 6043 0119.

Regional Groups

This year, for the first time, regional coordinators and hosting organisations attending the conference were presented with sponsor certificates in recognition of their support for the ANPC. The recurring theme of reports on the progress of regional groups was that they are extremely important to the future of the ANPC, as increasingly the focus of funding and activity in conservation is at the regional level. Regional support for major ANPC activities such as courses and conferences is essential. Regions which are thriving are those with strong voluntary coordination. So if you are interested in contributing some time to coordinate activities at the local level, contact the National Office.

Sydney Region

Tracey Armstrong, Mount Annan Botanic Gardens

On Saturday 25th of September, the Sydney Regional Group met at the Hunter Region Botanic Garden (HRBG), where Kevin Stokes, who organised the meeting, and Terry Tame gave us a guided tour, with emphasis on the many rare or threatened plants in their collection. The garden, which is run entirely by volunteers, is very impressive. Many aspects of the garden's activities were discussed including propagation, plant collecting, the volunteer program, sculpture in the garden, working with the local Aboriginal community, the aims and future direction of the garden and funding. Anyone needing advice in any of these areas could do worse than to contact Kevin or Terry.

After lunch at the garden, we visited the Shortland Wetlands Centre which is another community-run project. It is a recognised Ramsar site and has its own captive breeding program for the endangered Freckled Duck. The two big ponds in front of the Centre were originally wetlands which were filled in to make playing fields, and then dug out to make the ponds; an impressive achievement for a local community group.

It was a very small meeting with just five people in total, but it illustrated one of the most

important functions of the ANPC. A new member from Newcastle joined the Network and in meeting the other four people he made contacts in the HRBG, the local Australian Plants Society, the Royal Botanic Gardens, both Sydney and Mount Annan, Newcastle University, a wattle expert, and a local bird watcher. In return we made contact with an ecological surveyor based in the Newcastle area.

I had three reasons for travelling to Newcastle. One, of course, was to attend the meeting, the second was to deliver cutting material from Mount Annan Botanic Garden to HRBG, and the third was to collect wild-sourced material of *Capparis arborea* from Kooragang Island. This is the food plant of the Common Pearl White Butterfly. Although they are known as 'Common' Pearl Whites, they rely on *Capparis* to feed their caterpillars and without the plant there are no butterflies. With the clearing of coastal rainforests, this butterfly has become increasingly rare. At present the Royal Botanic Gardens, Sydney has the southernmost isolated population of this butterfly, but in the long term we would like to introduce the butterfly to Mount Annan Botanic Garden and use it to illustrate the inter-relationships of plants and animals, and their importance to conservation.

This collecting demonstrates one of the benefits of the ANPC. I had no accurate collecting localities for this species, but I asked Kevin Stokes if he knew where to find it, and he asked Anthony Marchment from the Kooragang Wetland Rehabilitation Scheme, resulting in a successful collection. If the cuttings don't strike, I can go back to the trees and collect seed later in the season. All I needed was the ANPC for information and the appropriate permission from the landholder. At this point I'd like to emphasise the importance of getting the permission and/or the licences necessary to collect plant material. In NSW, you need a licence to collect in national parks, state forests and recently in some local council areas. Of course, you always need a licence from national parks to collect any rare or threatened species whether it occurs in a national park or on a roadside.

This exchange of information and materials is what the Network was designed for; it provides linkages between government departments, community groups and interested individuals, and puts human faces to the bureaucracies. To continue to provide this function, the Regional Groups need to remain active and interesting;

without the support of members the Regions will crumble.

There has been some interest in starting a Regional Group in the Hunter region. This would allow members there, and possibly as far north as Taree, to meet each other face to face and so continue the grass-roots networking which is the heart and soul of the ANPC. If you are interested in a Hunter Regional Group, or know of anyone who might be interested, please ring Tracey Armstrong on (02) 4648 2477 during business hours.

NSW South West Slopes Region

Paul Scannell, Albury Botanic Gardens

Threatened Species Recovery Plan. The *Caladenia concolor* (Crimson Spider Orchid) Recovery Plan surveys were carried out in September at possible sites in the Albury region. No further plants were found during the surveys, but sites have been recorded and will be inspected over the next three years to verify results. During the course of the surveys we found two species of Greenhood orchid new to the area (*Pterostylis mutica* and *P. melagramma*), bringing the number of orchid species in our area to 45. Members of the Friends of the Albury Botanic Gardens who were involved in the surveys had a great time and were intrigued by the diversity they encountered as they scoured the bush.

4th National ANPC Conference, Albury

Wodonga. The Lake Hume Resort, Albury was the venue for the 1999 ANPC conference, November 24th to the 29th. A great program, spattered with social activities and some of the best songs about lichen and fungi you could ever hope to hear! Papers presented on *Caladenia concolor*, Grassy White Box woodlands and the Chiltern Box Ironbark National Park, gave us a valuable insight into local issues. The workshops on the Sunday were well attended by local farmers, landcare people and departmental staff. The Fungimap and cryptogam workshops proved very popular and highlighted the amount of work still required in this field over the next hundred years or so.

Controlled burns in Chiltern Box Ironbark National Park. The Victorian Department of Natural Resources and Environment are carrying out controlled burns in areas of the national park and we are all eagerly awaiting the surveys of the regrowth, as there are several threatened species in the area. Monitoring and surveying over autumn and spring could show that summer burns are a valuable tool in regeneration and effective fire management for our flora.

Contact: Paul Scannell, Albury Botanic Gardens; Tel: (02) 6023 8241; Fax (02) 6041 6527; E-mail: accgarden@albury.net.au
Web: www.albury.net.au/~accparks

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Note: Memberships are valid for the calendar year.

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Biodiversity Group, Environment Australia (2000)
Brisbane Botanic Gardens, Qld (1998)
Caloundra City Council, Qld (1998)
Centre for Plant Biodiv. Rsch, ACT (1999)
Centre for Plant Conservation Genetics, NSW (1999)
Coffs Harbour City Council, NSW (2000)
Council of the City of Orange, NSW (1998)
CSIRO Publishing (1999)
Defence Estate Organisation, ACT (1998)
Dept. of Conservation and Land Management, WA (1999)

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Eurobodalla Bot Garden, NSW (1999)
Flecker Botanic Gardens, Qld (1999)
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Gladstone Tandoon Botanic Garden, Qld (1998)
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North Forest Products, Tas (1998)
NSW National Parks & Wildlife Service (1999)
Olympic Coord. Authority, NSW (1998)
Pacific Power, NSW (1998)
Parks and Wildlife Commission, NT (1999)
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Qld Dept. Environment Cent. Coast (1999)
Queensland Herbarium (1998)
Randwick City Council, NSW (1998)
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RGC Mineral Sands, WA (1998)
Roads and Traffic Authority NSW (1999)
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Other Organisations

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Australian Arid Land Botanic Garden, SA (1999)
Aust Assn. of Bush Regenerators (1998)
Aust. Inland Botanic Gardens, Vic (1997)
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Indigenous Flora & Fauna Assn (2000)
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Merri Creek Management C'ttee, Vic (2000)
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Myall Park Botanic Garden, Qld (1998)
National Herbalists Assn of Aust (2000)
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NSW Roadside Env't. C'ttee (1999)
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